

**AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows:

1. (Previously Presented) A method for correcting speed feedback in a drive motor for imparting accurate upward and downward travel to a load, the steps comprising:

- measuring a speed value of the drive motor by a feedback sensor;
- provide speed references for upward and downward constant-speed travel;
- detecting a plurality of speed measurements for upward constant-speed travel;
- detecting a plurality of speed measurements for downward constant-speed travel;
- averaging the plurality of speed references and measurements for upward and downward constant-speed travel;
- identifying a gain factor from said calculated averages of said speed references and speed measurements for downward and upward constant-speed travel;
- identifying a zero factor from said calculated averages of said speed references and speed measurements for downward and upward constant-speed travel; and
- correcting the measured speed value utilizing said gain and zero factors to compensate for drift in the feedback sensor.

2. (Previously Presented) The method according to claim 1, wherein the averages of the speed values of speed reference and speed measurement are calculated using a sum of the speed values and a total number of samples of the speed values.

3. (Previously Presented) The method according to claim 2, wherein the gain factor and zero factor are identified each time the averages of the speed values of speed reference and speed measurement are calculated.

4. (Previously Presented) The method according to claim 3, wherein the gain factor and zero factor are updated by a forgetting factor.

5 (Previously Presented) The method according to claim 3, wherein the gain factor and zero factor are updated by an exponential forgetting factor.

6. (Previously Presented) The method according to claim 4, wherein, by applying the forgetting factor, measurement samples of recent history are weighted greater than earlier measurement samples.

7. (Previously Presented) The method according to claim 1, wherein the method is adaptive to continuously update parameters for correcting said measured speed value.

8. (Previously Presented) The method according to claim 1, wherein the drive motor is operatively incorporated as part of an elevator drive machine.

9. (Currently Amended) An apparatus for correcting measured speed feedback, the apparatus comprising:  
a measuring unit for measuring a speed value of a drive motor;  
a calculating unit for calculating averages of a speed reference and a speed measurement from the measured speed value;

wherein the averages of a speed reference and a speed measurement are determined by detecting a plurality of speed measurements for upward constant-speed travel, detecting a plurality of speed measurements for downward constant-speed travel, and averaging the plurality of speed references and measurements for upward and for downward constant-speed travel;

an identifying unit for identifying a gain factor and a zero factor;

wherein the identifying unit identifies the gain factor from said calculated averages of said speed references and speed measurements for downward and for upward constant-speed travel;

and wherein the identifying unit also identifies a zero factor from said calculated averages of said speed references and speed measurements for downward and for upward constant-speed travel; and

a correcting unit for compensating a drift in the measuring unit, the correcting unit compensating for the drift on the basis of the average of the speed reference, the average of the speed measurement, the identified gain factor, the identified zero factor, and on the basis of a forgetting factor;

wherein the forgetting factor is a constant value that may be set to any value between 0 and 1 such as to vary the speed of forgetting.

10. (Previously Presented) The method of claim 1, wherein the drive motor is a synchronous permanent magnet drive motor.

11. (Previously Presented) The method of claim 1, wherein the sensor is a tachometer.

12. (Previously Presented) The apparatus of claim 9, wherein the drive motor is a synchronous permanent magnet drive motor.

13. (Previously Presented) The apparatus of claim 9, wherein the sensor is a tachometer.